

REMARKS

In the amendment presented above, Applicant has amended the independent claims 1, 21 and 27 to recite that the illuminating radiation has a pulse duration of 350 $\mu$ sec. Support for this amendment can be found in the table at the bottom of page 8 of the original specification as filed. It is respectfully submitted that the prior art fails to teach or suggest this defined pulse duration, which advantageously provides unexpected results of increased type III collagen production in the target tissue structure. Therefore, it is respectfully submitted that independent claims 1, 21 and 27 are patentably distinct over the cited prior art.

With respect to the rejection of the claims under 35 USC §102 over U.S. Patent 6,443,946 to Clement and WO 98/24512 to Jones et al (and under 35 USC §103 over Clement and Jones et al. further in view of U.S. Patent No. 6,156,028 to Prescott and U.S. Patent No. 5,964,749 to Eckhouse et al.), applicant respectfully submits that these prior art references fail to teach or suggest the use of a pulse duration of 350 $\mu$ sec as recited in the claims. The Examiner points to the broad range of pulse durations described in these references (a range between 200  $\mu$ sec and 1 ms at col. 5, line 21 of Clement, and a range between 200  $\mu$ sec and 1 ms at page 6, paragraph 6 of Jones et al.) as teaching this feature. However, it is well settled that when the claim is directed to a narrow range (a pulse duration of 350 $\mu$ sec) and the cited reference(s) teach a broad range (a pulse duration with a range between 200  $\mu$ sec and 1 ms), and there is evidence that the claimed narrow range

achieves unexpected results relative to the prior art range, the claim is patentable over the cited reference(s). See In re Peterson 65 USPQ 2d 1379, 1383 (Fed. Cir. 2003), and In re Soni, 34 USPQ 2d 1684, 1687 (Fed. Cir. 1995). In the present application, the data provided by the two examples at pages 8-10 of the specification clearly show that the narrow pulse duration of 350 $\mu$ sec has unexpected results by causing significant increases in type III collagen production in the target tissue structure (84% increase in production rate) as compared to the pulse durations within the broad range recited in the prior art (between 22% to 44% increase in production rate). Because there is ample evidence that the claimed narrow range achieves unexpected results relative to the prior art broad range, applicant respectfully submits that claims 1, 21 and 27 as amended are patentable over the cited prior art.

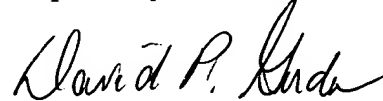
The dependent claims 2-18, 20, 21, 23, 25 and 26 are patentable over the cited prior art for those reasons advanced above with respect to claims 1, 21 and 27 from which they respectfully depend, and for reciting additional features neither taught nor suggested by the cited prior art. For example, claim 20 recites that a controlled inflammatory response is induced in "at least one collagen containing structure selected from a group consisting of: bone, dentin, cartilage, uterus, and large veins and arteries." Nowhere does the cited prior art teach or suggest this group of structures.

With respect to the double patenting rejection over claim 1 of U.S. Patent 6,443,946, the claims of the present application have been amended to recite that the illuminating radiation has pulse duration of 350 $\mu$ sec. This feature renders the claims of

the present invention non-obvious over the claims of U.S. Patent 6,443,946 for those same reasons advanced above with respect to the arguments addressing the rejections of the claims under 35 USC §102 and §103.

In light of all of the above, it is submitted that the claims are in order for allowance, and prompt allowance is earnestly requested. Should any issues remain outstanding, the Examiner is invited to call the undersigned attorney of record so that the case may proceed expeditiously to allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David P. Gordon".

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